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(54) Title: NITROSATED AND/OR NITROSYLATED COMPOUNDS, COMPOSITIONS AND METHODS OF USE

(57) **Abstract:** The invention describes novel nitrosated and/or nitrosylated compounds of the invention and pharmaceutically acceptable salts thereof, and novel compositions comprising at least one nitrosated and/or nitrosylated compound of the invention, and, optionally, at least one nitric oxide donor and/or at least one therapeutic agent. The invention also provides novel compositions comprising at least one compound of the invention, and at least one nitric oxide donor and/or at least one therapeutic agent. The invention also provides novel kits comprising at least one compound of the invention, that is optionally nitrosated and/or nitrosylated, and, optionally, at least one nitric oxide donor and/or at least one therapeutic agent. The invention also provides methods for (a) treating bacterial infections; (b) treating viral infections; (c) treating fungal infections; and (d) treating lesions. The nitrosated and/or nitrosylated compounds of the invention are preferably nitrosated and/or nitrosylated antimicrobial compounds, nitrosated and/or nitrosylated adenosine antagonists, nitrosated and/or nitrosylated LTB4 antagonists, nitrosated and/or nitrosylated mucoregulators and nitrosated and/or nitrosylated purine agonists. The methods of the invention are preferably for the treatment of bacterial infections associated with pulmonary diseases such as cystic fibrosis.